Better Music Builder™

Professional UHF Wireless Microphone System

VM-52U

Operating Instructions

Thank you for purchasing this unit. To make full and effective use of this unit, please read this Owner's Manual carefully before operating it. After reading this manual, retain this booklet together with the Warranty Card for future use in case of maintenance or troubleshooting.

Passionate about Music

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FOREWORD

Thank you for purchasing our company's product VM-52U. This product is designed using America's most advanced audio technology up to date.

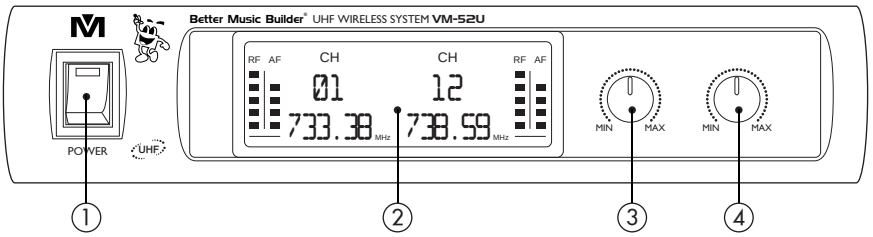
The system has the characteristic as follows:

1. Working frequency range: UHF520-810MHz (tunable)
2. CPU control: PLL frequency compose technique)
3. CPU controlled true diversity system for advance break up and receiver control of left and right channels
4. LCD (Liquid Crystal Display) screen
5. Transmitter and receiver audio system for high-pass, low-pass & band-pass filter technique to avoid noise and keep sound quality

RECEIVER SPECIFICATION

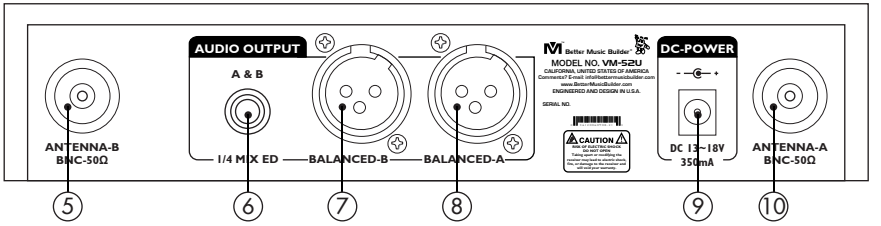
A. NAMES & FUNCTION:

Front Panel:



RECEIVER SPECIFICATION

Rear Panel:



Front Panel:

1. Power
2. LCD screen
3. Volume control
4. Volume control

Rear Panel:

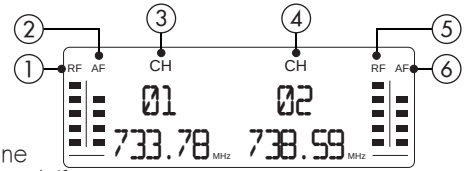
5. Antenna socket B
6. Unbalanced output
7. Balanced-B output
8. Balanced-A output
9. Power jack
10. Antenna socket A

B. MODEL SETUP SPECIFICATION:

1. Install two antennas to the antenna socket A & B of the rear panel, the direction between them should be adjusted about 90°.
   NOTE ➤ Do not install in too firmly or it may damage your system's antenna output.
2. Insert the DC power to the rear panel of your system.
   NOTE ➤ Only use a DC 13~15v DC power, if you use any other power voltage other than DC 13~15v you may damage the system. Your warranty may be terminated if you damage it like this.
3. Turn on the power button that the LCD screen will be on.
4. Adjust the receiver's status to your liking.
5. Turn off power the LCD screen will automatically shut off.

C. LCD PANEL OPERATION:

After turn on the power, LCD is light up as screen:



1. RF (radio frequency) Indicator
2. AF (audio frequency) Indicator
3. Current Channel Display
   NOTE ➤ Make sure your receiver's channel/frequency matches the one in your handheld transmitter's channel/frequency.
4. Current Channel Display
   NOTE ➤ Make sure your receiver's channel/frequency matches the one in your handheld transmitter's channel/frequency.
5. RF (radio frequency) Indicator
6. AF (audio frequency) Indicator

D. UHF FREQUENCIES:

There are a total of 14 different frequencies for selection as shown in the diagram.

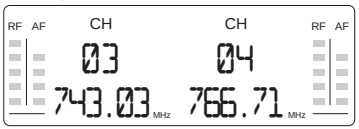
NOTE ➤ These 14 frequencies are default set by the manufacturer. Therefore, you cannot change them.

Each wireless system has two built-in UHF frequencies, so these 14 different frequencies are set into 7 groups from A to G. If you use more than two frequencies (for channel), you may purchase a different group of frequencies. For example, if you have the group A for frequency, then you need to purchase the group other than A (i.e. from B to G). Otherwise, the frequencies will be interrupted. However, if you find some interruptions in your wireless system within 200 feet, there is possibility that you may use the same frequency in your area. Therefore, you need to change the frequency in your wireless system, or you may need to upgrade your wireless system. For upgrading your wireless system, we recommend you to purchase the VM-92U because it has 32 different UHF frequencies for selection.

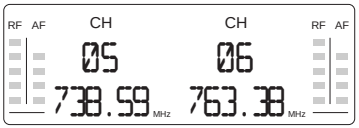
E. OPERATING RECEIVER (7 GROUP) FREQUENCY DISPLAY DIAGRAM

Group A

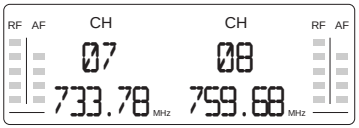
Group B



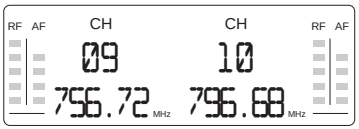
Group C



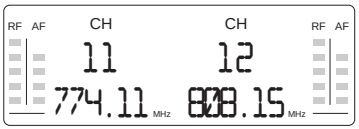
Group D



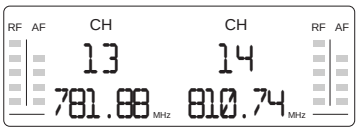
Group E



Group F



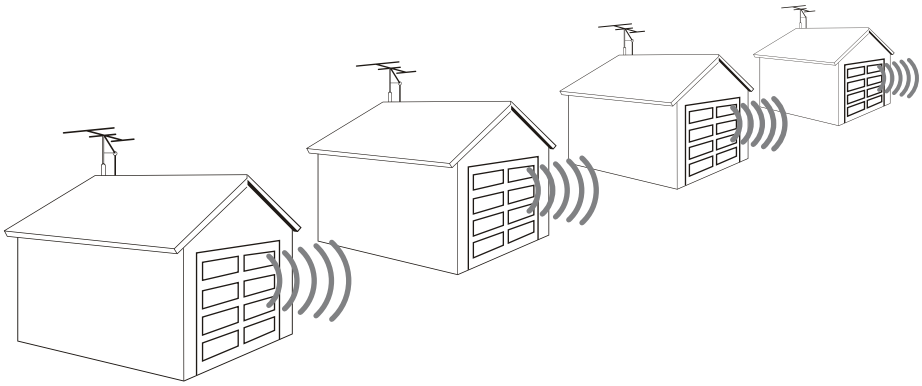
Group G



VM-52U FCC FREQUENCY

	VM-52U FCC Frequency	
Group	Receiver Frequency	Transmitter Frequency
A	747.10	CH 01
	802.60	CH 02
B	743.03	CH 03
	766.71	CH 04
C	738.59	CH 05
	763.38	CH 06
D	733.78	CH 07
	759.68	CH 08
E	756.72	CH 09
	796.68	CH 10
F	774.11	CH 11
	808.15	CH 12
G	781.88	CH 13
	810.74	CH 14

HOME ELECTRONICS EQUIPMENT WIRELESS SYSTEM



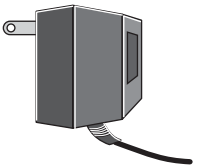
RECEIVER DESCRIPTION

SETTING UP YOUR RECEIVER:

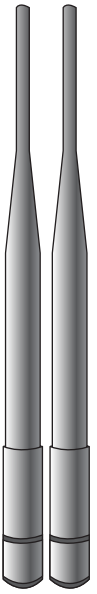
1. The package has two antennas, a receiver, two microphones and one DC power adaptor.

Receiver: 1 Set

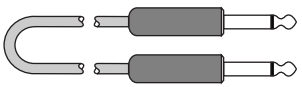
Handheld Transmitter: 2 Set



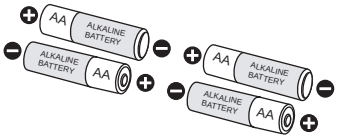
DC Power Adapter: 1 Unit



Receiving Antenna: 2 Units

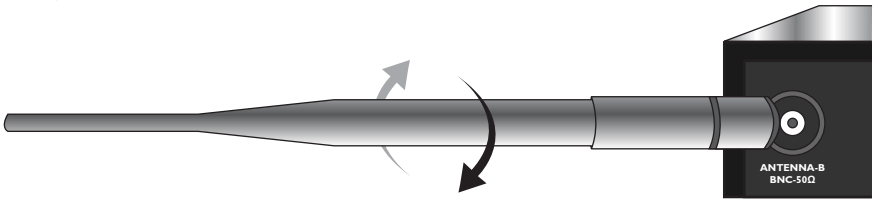


Audio Connecting Cable: 1 Unit



AA (R6 1.5V) Battery: 4 Units

2. Screw the antennas BNC socket into the back panel of the receiver and turn it in clockwise to lock it as shown in the following diagram. You can adjust the antennas into different angles for receiving good signals.



HOW TO CONNECT AUDIO OUT

There are three different connectors as shown in the following diagram:

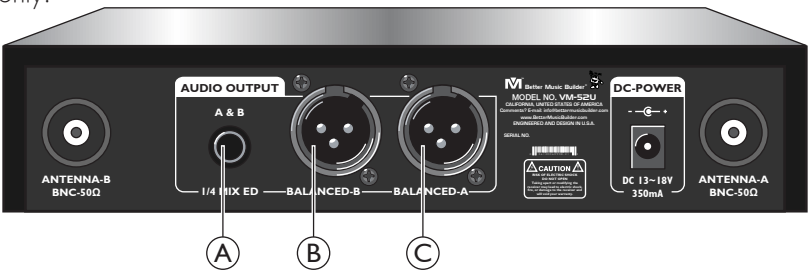
- Connector A is a mixed audio output (Channel A and Channel B)
- Connector B is a channel B XLR-balanced audio out (Group B Mic.)
- Connector C is a channel A XLR-balanced audio out (Group A Mic.)

NOTE

Connector A is an unbalanced audio signal. If you connect A to the mixer or amplifier, then both MIC. A and MIC. B will have the same effect.

Connector B is a balanced XLR audio signal. If you connect B to the mixer or amplifier, then you can control the microphone effect on MIC. B only.

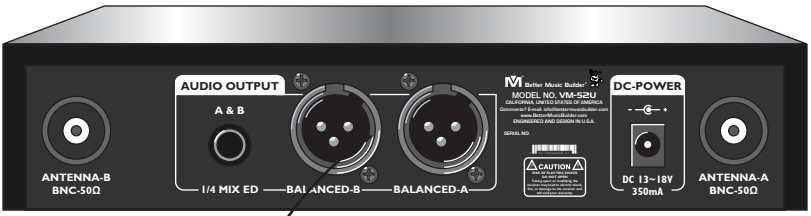
Connector C (Balanced A) is a balanced XLR audio signal. If you connect A to the mixer or amplifier, then you can control the microphone effect on MIC. A only.



UHF WIRELESS SYSTEM CHART

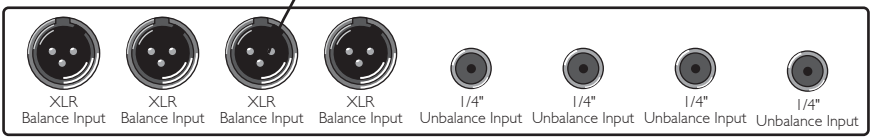
Channel A Handheld Transmitter

Channel B Handheld Transmitter



Rear View

Balance Connection



Audio Mixer Amplifier or a Karaoke Unit Input terminal

DC-POWER CONNECTION

Rear View

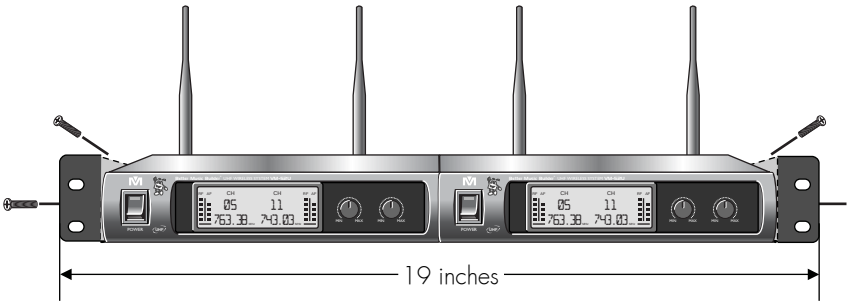
120V AC DC-13~18V 350mA adaptor

NOTE

If you use 220V to 240V, you must make sure to use a right adaptor, otherwise, it would damage your system. Our warranty does not cover this.

OPTIONAL FOR 19" RACK MOUNT KIT

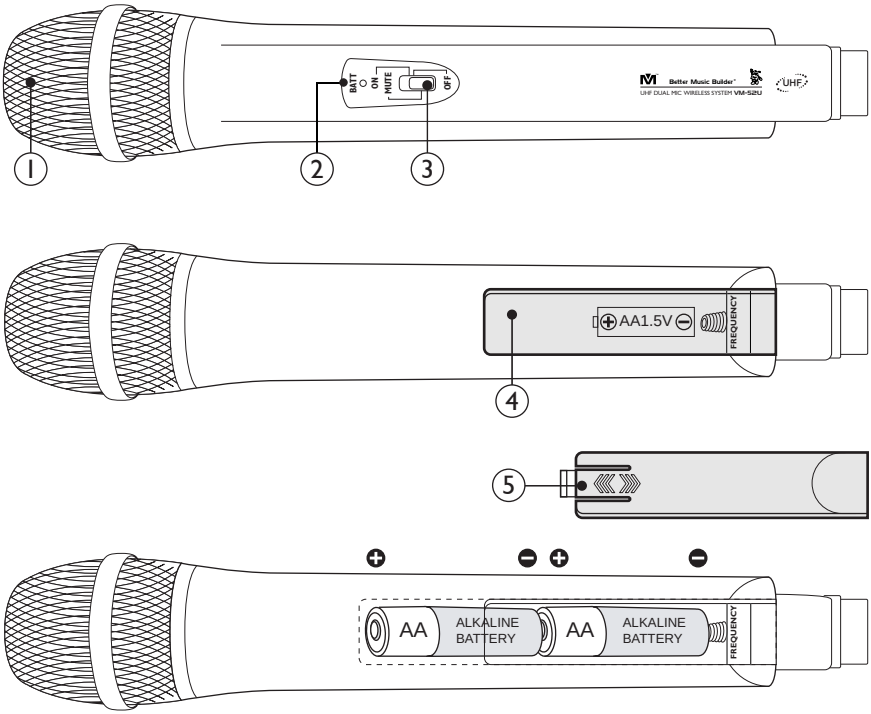
If you want to put two systems onto a mount-kit, please follow the below diagram. Our design has this special feature to allow it rack mountable, so it can be removable.



HANDHELD TRANSMITTER (Wireless Mic.) SPECIFICATION

NAMES & FUNCTION:

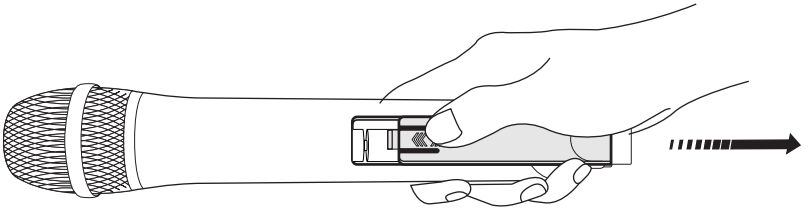
Uncover Looking of the Handheld Transmitter:



1. Condenser and grille
2. Battery power indicator light: If light is flashing this means battery power is low and must be replaced, if light is not flashing battery is at normal power.
3. Easily-accessible power switch ON/OFF/MUTE
4. Battery dock: insert 2x1.5V AA battery or 2x1.2V rechargeable battery.
5. Battery Cover: Insert 2 "AA" batteries into the battery slot, putting battery's polarity on different ends may damage system and your warranty may be terminated if damage does occur because of it.

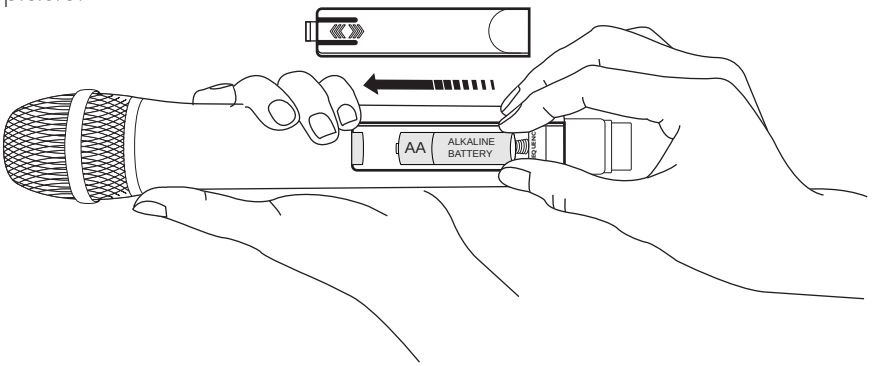
HOW TO INSERT HANDHELD TRANSMITTER'S BATTERIES

1. Slide open battery cover.

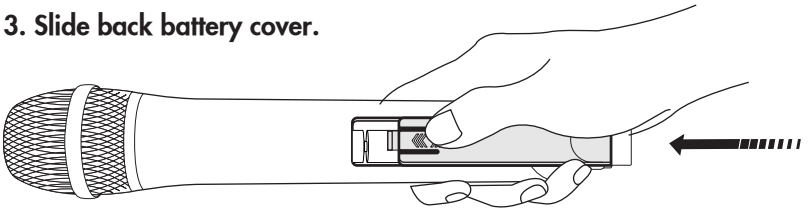


2. Use one hand to hold onto the top of your transmitter, with your other hand slide 2 AA batteries into battery slot. Becareful not to drop transmitter while inserting batteries.

Make sure that you insert the battery at the right electric poles, as shown in picture.



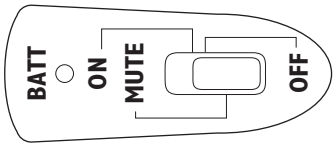
3. Slide back battery cover.



HOW TO TURN ON AND OFF TRANSMITTER

Click the power switch to turn on/off your transmitter. When on transmitter's light will be on, when off transmitter's light will be off.

NOTE When the power light is flashing, that indicates that the transmitter's battery is low. If there is no light at all, battery is out of power.



TECHNICAL SPECIFICATION

A. SYSTEM FEATURE:

1. Channel: 2
2. Frequency Range: 700MHz~900MHz (Selectable)
3. Modulation Mode: FM
4. Maximum Frequency Deviation: ± 45KHz
5. Audio Frequency Response: 35Hz~20KHz
6. Frequency Setup Mode: PLL
7. Receiver Dimensions (WxHxD): 8.27x1.97x7.5 (inches)/21x5x19 (cm)
8. Handheld Transmitter Dimensions (WxH): x1.7x10.4 (inches)/4.4x26.5 (cm)
9. Net Weight: 3.8 lbs / 1.7 kg
10. Shipping Weight: 5.8 lbs / 2.6 kg

B. TECHNOLOGICAL FEATURE OF THE TRANSMITTER:

1. Transmitter: 10mW
2. Oscillation Mode: PLL
3. Adjustment Mode: FM
4. Image Controlment: -50dB
5. Power: DC 2.4V~7.2V (DC 1.2Vx2x3 or 1.5x2)
6. Battery: 2 PCS AA Type Alkaline Battery

C. TECHNOLOGICAL FEATURE OF THE RECEIVER:

1. Sensitivity: 2.0uV
2. Sensitivity Adjustment Range: 12~32dB BUV
3. Stray Control: > 75dB
4. Output Level: Balance Output: 0~0.5V/100, Sound Output: 0~0.5V/5K
5. Power: 13~18V DC
6. Work Current: 350mA

CAUTION

1. When the receiver is on, the red light repeatedly flash on the transmitter, it means that the receiver or the transmitter is damaged, please send to the manufacturer.

2. If you are using several systems, please change the frequency carefully, to avoid interfering with other signals.

3. The input power voltage of receiver's outside power is 200V (±10%), it may effect the receiver if it is lower or higher than the given rate.

4. When inserting the battery into the transmitter, avoid putting the polarity in an opposite direction, or it may be damaged. (If damage occurs because of this your warranty may be terminated)

5. When selecting sensitivity of the receiver, the least figure you should select should be 15dB, or the signal will be worse in a further distance.

Caution: To reduce the risk of electrical shock, do not remove the cover (or back). No user serviceable parts inside: refer servicing to qualified personnel.

Warning: To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure voltage that may be sufficient to constitute a risk of shock.

FREQUENCY SCAN GROUPS FOR BAND C & BAND D

Band C

Band C Scan Group 1			Band C Scan Group 2			Band C Scan Group 3		
TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *	
25	(None)	0	25	541.500	1	25	541.500	1
26	542.750		26	542.750		26	542.125	
26	545.500		26	544.375		26	543.500	
26	547.125		26	544.750		26	544.000	
26	547.375	4	26	545.750		26	546.250	4
27	549.750		26	547.500	5	27	548.250	
27	550.375		27	(None)	0	27	549.750	2
27	550.625	3	28	554.250		28	555.750	
28	557.250		28	556.125		28	556.625	
28	557.500		28	557.500		28	558.250	
28	559.250		28	559.375	4	28	559.375 4	
28	559.500	4	29	560.000		29	560.125	
29	562.000		29	561.875		29	561.500	
29	563.375		29	562.250		29	564.000	
29	563.625	3	29	563.250		29	564.250	4
30	566.000		29	565.500	5	30	566.125	1
30	566.250	2	30	566.000	1			

Band D

Band D Scan Group 1			Band D Scan Group 2			Band D Scan Group 3		
TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *		TV Ch.	Frequency – MHz *	
44	655.500	1	44	655.875	1	44	655.500	
45	658.000		45	656.250		44	655.750	2
45	658.375		45	658.500		45	656.625	
45	659.250		45	659.750		45	658.500	
45	659.500		45	660.000		45	658.750	
45	661.500	5	45	660.500	5	45	659.500	4
46	662.375		46	664.375		46	662.750	
46	662.750	2	46	665.500	2	46	665.250	2
47	669.625		47	671.625		47	671.250	
47	671.750	2	47	672.000	2	47	672.375	
48	674.750		48	674.000		47	673.125	3
48	675.750		48	674.500		48	674.125	
48	676.125		48	675.750		48	674.500	
48	678.000		48	676.750		48	675.375	
48	678.250		48	678.250	5	48	678.625	
48	679.500	6	49	680.250	1	48	679.125	5
49	(None)	0	49	(None)	0			

* Number of wireless frequencies in TV Channel.

US UHF WIRELESS OPERATING FREQUENCIES

TV Ch.	Band C: 541.500 - 566.375 MHz							
25	–	–	–	–	541.500	541.625	541.750	541.875
26	542.000	542.125	542.250	542.375	542.500	542.625	542.750	542.875
26	543.000	543.125	543.250	543.375	543.500	543.625	543.750	543.875
26	544.000	544.125	544.250	544.375	544.500	544.625	544.750	544.875
26	545.000	545.125	545.250	545.375	545.500	545.625	545.750	545.875
26	546.000	546.125	546.250	546.375	546.500	546.625	546.750	546.875
26	547.000	547.125	547.250	547.375	547.500	547.625	547.750	547.875
27	548.000	548.125	548.250	548.375	548.500	548.625	548.750	548.875
27	549.000	549.125	549.250	549.375	549.500	549.625	549.750	549.875
27	550.000	550.125	550.250	550.375	550.500	550.625	550.750	550.875
27	551.000	551.125	551.250	551.375	551.500	551.625	551.750	551.875
27	552.000	552.125	552.250	552.375	552.500	552.625	552.750	552.875
27	553.000	553.125	553.250	553.375	553.500	553.625	553.750	553.875
28	554.000	554.125	554.250	554.375	554.500	554.625	554.750	554.875
28	555.000	555.125	555.250	555.375	555.500	555.625	555.750	555.875
28	556.000	556.125	556.250	556.375	556.500	556.625	556.750	556.875
28	557.000	557.125	557.250	557.375	557.500	557.625	557.750	557.875
28	558.000	558.125	558.250	558.375	558.500	558.625	558.750	558.875
28	559.000	559.125	559.250	559.375	559.500	559.625	559.750	559.875
29	560.000	560.125	560.250	560.375	560.500	560.625	560.750	560.875
29	561.000	561.125	561.250	561.375	561.500	561.625	561.750	561.875
29	562.000	562.125	562.250	562.375	562.500	562.62	5562.750	562.875
29	563.000	563.125	563.250	563.375	563.500	563.625	563.750	563.875
29	564.000	564.125	564.250	564.375	564.500	564.625	564.750	564.875
29	565.000	565.125	565.250	565.375	565.500	565.625	565.750	565.875
30	566.000	566.125	566.250	566.375	–	–	–	–

Avoid using same frequencies as TV channels or other radio signals for better performance.

TV Ch.	Band D: 655.500 - 680.375 MHz							
44	–	–	–	–	655.500	655.625	655.750	655.875
45	656.000	656.125	656.250	656.375	656.500	656.625	656.750	656.875
45	657.000	657.125	657.250	657.375	657.500	657.625	657.750	657.875
45	658.000	658.125	658.250	658.375	658.500	658.625	658.750	658.875
45	659.000	659.125	659.250	659.375	659.500	659.625	659.750	659.875
45	660.000	660.125	660.250	660.375	660.500	660.625	660.750	660.875
45	661.000	661.125	661.250	661.375	661.500	661.625	661.750	661.875
46	662.000	662.125	662.250	662.375	662.500	662.625	662.750	662.875
46	663.000	663.125	663.250	663.375	663.500	663.625	663.750	663.875
46	664.000	664.125	664.250	664.375	664.500	664.625	664.750	664.875
46	665.000	665.125	665.250	665.375	665.500	665.625	665.750	665.875
46	666.000	666.125	666.250	666.375	666.500	666.625	666.750	666.875
46	667.000	667.125	667.250	667.375	667.500	667.625	667.750	667.875
47	668.000	668.125	668.250	668.375	668.500	668.625	668.750	668.875
47	669.000	669.125	669.250	669.375	669.500	669.625	669.750	669.875
47	670.000	670.125	670.250	670.375	670.500	670.625	670.750	670.875
47	671.000	671.125	671.250	671.375	671.500	671.625	671.750	671.875
47	672.000	672.125	672.250	672.375	672.500	672.625	672.750	672.875
47	673.000	673.125	673.250	673.375	673.500	673.625	673.750	673.875
48	674.000	674.125	674.250	674.375	674.500	674.625	674.750	674.875
48	675.000	675.125	675.250	675.375	675.500	675.625	675.750	675.875
48	676.000	676.125	676.250	676.375	676.500	676.625	676.750	676.875
48	677.000	677.125	677.250	677.375	677.500	677.625	677.750	677.875
48	678.000	678.125	678.250	678.375	678.500	678.625	678.750	678.875
48	679.000	679.125	679.250	679.375	679.500	679.625	679.750	679.875
49	680.000	680.125	680.250	680.375	–	–	–	–

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